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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/617,376

07/11/2003

Christopher L. Flowers

FLO002-091

2244

7590 02/13/2007
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EXAMINER

LAMBELET, LAWRENCE EMILE

ART UNIT

PAPER NUMBER

1732

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/617,376

Applicant(s)

FLOWERS ET AL.

Examiner

Lawrence Lambelet

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGinniss et al (U.S. Patent 4491653), and further in view of Seip et al (U.S. Patent Publication 2004/0171724).

McGinniss et al, hereafter "McGinniss", discloses a method for improving stain resistance of a polymeric solid, as recited by claim 1. McGinniss teaches a process of fluorinating the surface of an article (reaction) with a mixture of fluorine gas and air (oxygen) in a 1-2 liter reaction cell (chamber) thereby to impart improved dirt resistance (stain resistance). This is shown at lines 22-31 in column 2, 61-66 in column 2, 3-7 in column 5, 37-40 in column 7, 31-33 in column 10, 49-50 in column 10, and in reference claims 3-6.

McGinniss teaches a polypropylene substrate, as required by claim 2, at lines 49-50 in column 10.

McGinniss teaches a fluorination time of 1-30 minutes, meeting the 0.5-60 minute requirement of claim 3, and further teaches a fluorine gas concentration of 4%, meeting

Art Unit: 1732

the less than 5% vol requirement of claims 4 and 5. These teachings are shown at lines 35-43 in column 4 and in reference claims 3 and 5.

McGinniss teaches nitrogen as an additional component to the gas mixture, as required by claim 6, at lines 59-63 in column 4 and in reference claim 6.

McGinniss teaches a reaction pressure of about 1 atmosphere, as required by claim 13, and as shown at lines 27-31 in column 2.

McGinniss does not teach that the polymeric solid is a washing machine component, as required by claims 1 and 2, and further does not teach that the component is a dishwasher component, as required by claim 8, or a specific dishwasher component, as required by claims 9, 10, and 11.

Seip et al, hereafter "Seip", teaches enhanced stain resistance for such appliances as washing machines and dishwashers having polypropylene constituents. This is shown in the Abstract and in paragraph [0007]. It is well known in the art that dishwashing machines have tubs, door liners, and spray arms as plastic componentry.

McGinniss and Seip are combinable because they are concerned with a similar technical field, namely, stain-resistant polyolefin surfaces. One of ordinary skill in the art at the time of the invention would have found it obvious to include in the method of McGinniss the application, as taught by Seip, and would have been motivated to do so for the commercial benefit of a consumer product category.

Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGinniss in view of Seip, as applied to claims 1-6, 9-11, and 13 above, and further in view of Büschges et al (U.S. Patent 5,882,728).

McGinniss and Seip teach the method of claims 1-6, 9-11, and 13, as discussed above.

McGinniss and Seip do not teach maintaining the reaction chamber at a temperature of approximately 30-70° C, as required by claim 12. McGinniss and Seip further do not teach a penetration depth of about 1000 Å (0.1 µm)

Büschges et al, hereafter "Büschges", teaches a (preferable) temperature range of 20-80° C at lines 1-5 in column 2, 16-25 in column 2, 28-33 in column 2 and 58-61 in column 2. Büschges further teaches a fluorinated layer depth of (preferably) 0.1-100 µm.

McGinniss, Seip, and Büschges are combinable because they are concerned with a similar technical field, namely, surface enhancement of polyolefin materials. One of ordinary skill in the art at the time of the invention would have found it obvious to include in the method of McGinniss and Seip the temperature range and penetration depth, as taught by Büschges, and would have been motivated to do so to optimize the reaction parameters and to provide sufficient barrier property.

Response to Arguments

Applicant's arguments filed 11/22/2006 have been fully considered but they are not persuasive.

With respect to McGinniss in view of Seip, applicant argues that combination is improper because the references teach different processes for different classes of articles. Applicant further argues that the motivation, namely commercial benefit, is

improper because it is not explicitly cited in the references. Applicant still further argues that Seip is silent about fluorination and therefore teaches away from the process of McGinniss.

With regard to independent claim 1, the phrase "a plastic washing machine component" is a statement of intended use in the preamble. Applicant has not shown that the intended use results in any manipulative difference as compared to the prior art. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps are able to stand alone. *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976).

In response to argument, McGinniss teaches a surface treatment for stain resistance reading on the instant claims. Seip cites an application and need for stain resistance. The combination is proper because both references are addressing the same problem, namely stain resistance, and because there is reasonable expectation of success in applying the method of McGinniss to the application of Seip, namely appliances including dishwashers. Seip teaches a broader application for the process of McGinniss, and furtherance of the enterprise is sufficiently motivating. This is implicit in paragraph [0003] of Seip. With regard to Seip "teaching away", applicant is trying to apply the references in reverse order, with Seip as primary instead of secondary, as presented in the Office Action.

Art Unit: 1732

Further to McGinniss in view of Seip, applicant argues that claim 8 is missing from the rejection, and claims 9-11, dependent on claim 8, are not explicitly taught by the reference.

In response, claim 8 was inadvertently left off the header for the first 35 USC §103(a) rejection, but it was included in paragraph 8 therein where it was cited as prima facie obvious. Claims 9-10 detail components of dishwashers, and are prima facie obvious over a disclosure for a dishwasher. One of ordinary skill would have considered a stain resistant treatment applying to a finish of a dishwasher as applying also to the finish of the parts thereof.

With regard to McGinniss/Seip in view of Büschges, applicant argues that the process of Büschges has a more involved process than the instant claims, and that selectively applying parts of the process constitutes impermissible hindsight.

In response, the claims in question recite a temperature range and a penetration depth while being silent on other parameters, such as pressure and time. The process steps of Büschges, while including pressure and time, all have all the same temperature range, and there is only one penetration depth taught. Therefore, there is no selectivity in applying the teachings of Büschges. Furthermore, Büschges is concerned with fluorinated surface treatments, so it would be natural for one skilled in the art to seek Büschges' information on operating conditions.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986)

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Lambelet whose telephone number is 571-272-1713. The examiner can normally be reached on 8 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LEL
2/7/2007

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SUPERVISORY PATENT EXAMINER
2/10/07